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April 24, 1990

M.A. Hanna Company 1301 East Ninth Street Suite 3600 Cleveland, OH 44114-1824

ATTN: Richard Hahn

SUBJ: L.E. Carpenter, Wharton, NJ

January through March 1990 Progress Report

Gentlemen:

Per Paragraph 35 of the 1986 Administrative Consent Order between L.E. Carpenter & Company and the New Jersey Department of Environmental Protection (NJDEP), the following progress report is submitted detailing the status of activities at the former L.E. Carpenter facility. The report will include a discussion of product recovery and monthly monitoring activities completed to date. In addition, the status of the Remedial Investigation/Feasibility Study will be updated.

Product Recovery and Monthly Monitoring

Between January 1 and March 31, 1990, approximately 116 gallons of product were recovered from MW-6, MW-10 and MW-11s. As of March 30, 1990, 4480.3 gallons of product have been recovered at the L.E. Carpenter facility.

Elevation contour maps for ground water and the top of floating solvent across the site have been prepared for January, February and March 1990. In addition, solvent thickness isopach maps have been prepared for these three months. All figures are attached at the rear of this letter. A table preceding each month's figures summarizes the elevations of ground water, floating solvent and three surface water locations along the Rockaway River. The tables also include product thickness measurements in monitor wells across the site.

Please note that MW-6, MW-10, MW-11s were not used in developing the water level contour maps. Their exclusion was due to the presence of product and the effects of the ongoing recovery activities. As a result of the skimming product, elevations in these wells were lower than the groundwater



elevations in surrounding wells with no product. No means were available to calculate the actual water level without the influence of both the product and the skimming activities and the three wells were therefore excluded from the contouring process.

On January 24 and 25, 1990, groundwater samples were collected at MW-1, MW-2, MW-3, MW-4 and MW-5. Enseco-Erco Laboratories of Cambridge, Massachusetts, was contracted for the analytical work. Results of the laboratory analysis and QA/QC documentation are attached at the rear of this report. Please note that the groundwater analytical data for the first quarter of 1990 has been excerpted from the analytical results of the second round of groundwater sampling required for the Remedial Investigation. Accordingly, the QA/QC documentation attached to the analytical results is in conformance with Tier I reporting requirements, as required for the Remedial Investigation groundwater sampling results, rather than the Tier II reporting requirements customarily used in conjunction with the quarterly sampling.

Remedial Investigation/Feasibility Study Status

The second round of groundwater sampling for the Remedial Investigation was conducted between January 22 and 26, 1990. The samples were submitted to Enseco-Erco Laboratories in Cambridge, Massachusetts, for analysis. The analytical results were turned over to Roy F. Weston, Inc., during our March 21 meeting with Weston and Cris Anderson.

At present, GeoEngineering is undertaking revisions to the November 1989 Remedial Investigation Report. These revisions are being completed in response to the comments raised by the NJDEP and USEPA Region II in the March 5, 1990 NJDEP letter.

Please call if you have any questions regarding the above.

Sincerely,

GEOENGINEERING, INC.

William W. Dunnell IV Project Manager

WWD/avm
enclosures
cc T. Schwartz (5)

TABLE A: SOLVENT THICKNESS AND PIEZOMETRIC ELEVATIONS ON 1/5/90 SHALLOW WELLS

			MEASURED SOLVENT	
•	PIEZOMETRIC	FLOATING SOLVENT	THICKNESS IN	CALCULATED FLOATING
	SURFACE ELEVATION	SURFACE ELEVATION	MONITORING WELL	SOLVENT THICKNESS
WELL NO.	(feet above HSL)	(feet above MSL)	(feet)	(feet)
E222222				
1	624.9 •	625.0	0.65	0.10
2	624.4 •	. NS	0.00	0.00
3	625.5 •	625.6	0.35	0.05
4	624.6 *	624.6	0.01	0.00
5	624.9 •	NS	0.00	0.00
6	622 .7 @	622.9	1.42	0.21
. 7	624.6	NS	0.00	0.00
8	623.9	· NS	0.00	0.00
9	623.7	ns	0.00	0.00
· 10	621.7 @	621.9	1.43	0.21
11	618 .9 @	619.8	5.98	0.89
12	624.9 @	625.0	0.50	0.07
13	624.4	NS	0.00	0.00
14	624.2	ns	0.00	0.00
15	624.9	NS	0.00	0.00
16	625.5	NS NS	0.00	0.00
17	625.1	NS	0.00	0.00
18	624.8	NS	0.00	0.00
GEI-2s	625.7	NS	0.00	0.00

1,

DRAINAGE			NM
DITCH			
RIVER PT.			62

RIVER PT. 626.9 RIVER PT. 626.1 RIVER PT. 624.5

Elevations based on "Location and Elevation of Monitor Wells, L.E. Carpenter and Company Property", by Recon, Inc., 10-31-89

NOTES - Depth to water measured inside GEOMON Groundwater Sampler/Piezometer (inlet screen is below solvent level)

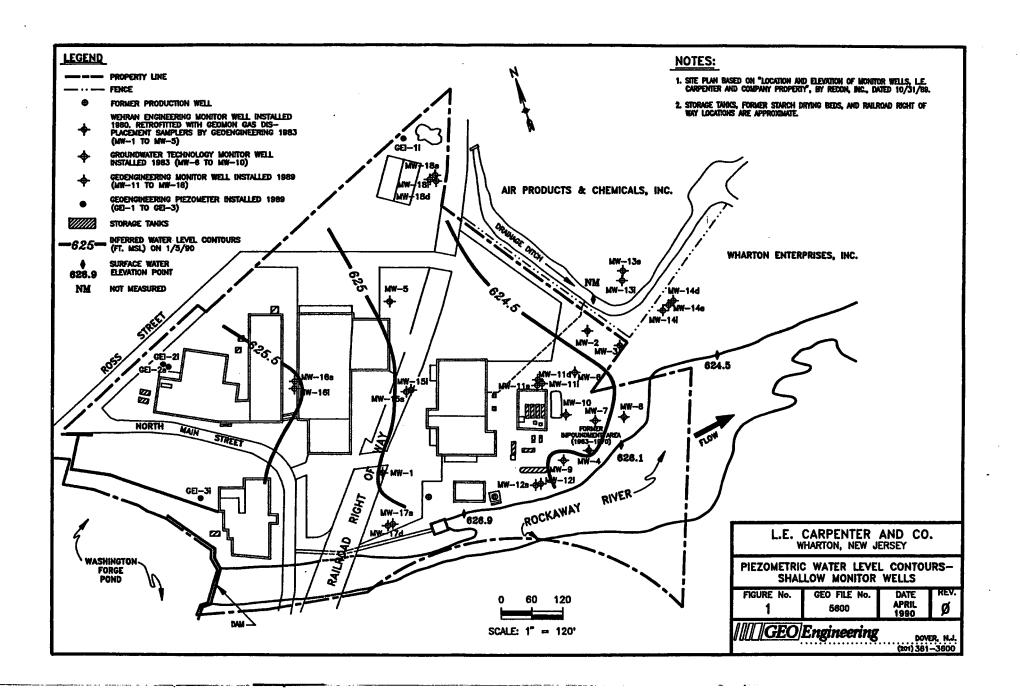
^{0 -} Calculated piezometric surface, assuming solvent specific gravity is 0.87.

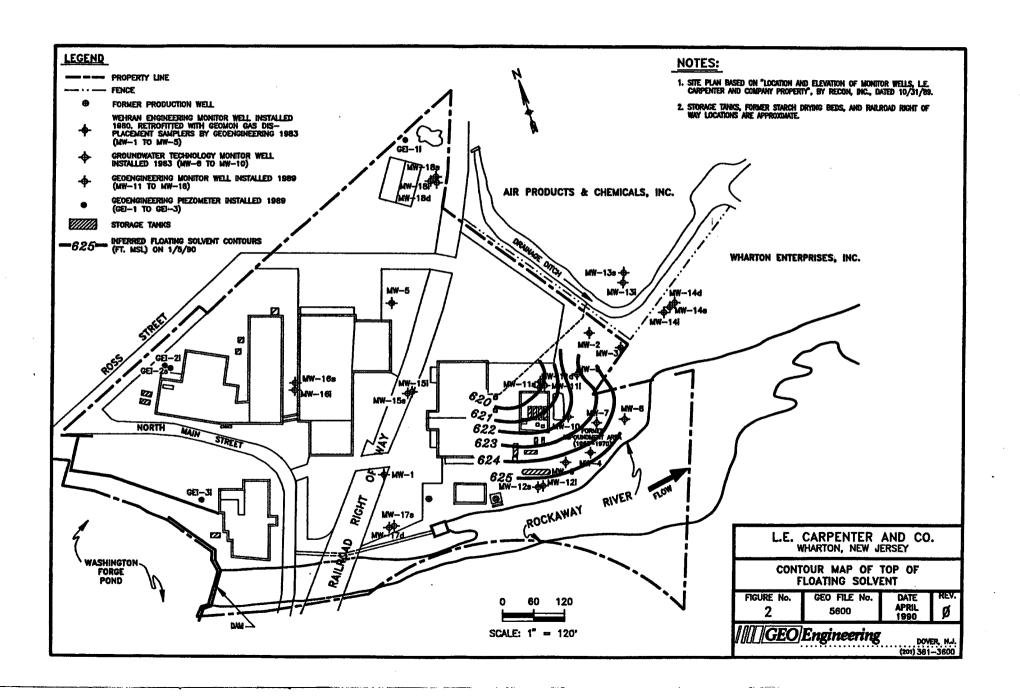
NS - No solvent observed in monitoring well

NM - Not measured

TABLE B: SOLVENT THICKNESS AND PIEZOMETRIC ELEVATIONS ON 1/5/90 INTERNEDIATE AND DEEP WELLS

9	PIEZOMETRIC SURFACE ELEVATION (feet above MSL)	FLOATING SOLVENT SURFACE ELEVATION (feet above MSL)	MEASURED SOLVENT THICKNESS IN MONITORING WELL (feet)	CALCULATED FLOATING SOLVENT THICKNESS (feet)
11 i	627.0	NS	0.00	0.00
12i	627.2	NS	0.00	0.00
13i	626.6	NS	0.00	0.00
14i	626.5	NS	0.00	0.00
15i	616.9	NS	0.00	0.00
16i	625.1	NS	0.00	0.00
18i	626.7	NS	0.00	0.00
GEI-1	626.8	NS	0.00	0.00
GE1-2	629.0	NS	0.00	0.00
GEI-3	628.7	. NS	0.00	0.00
11d	630.0	NS	0.00	0.00
17d	627.9	NS	0.00	0.00
18d	629.3	ns	0.00	0.00





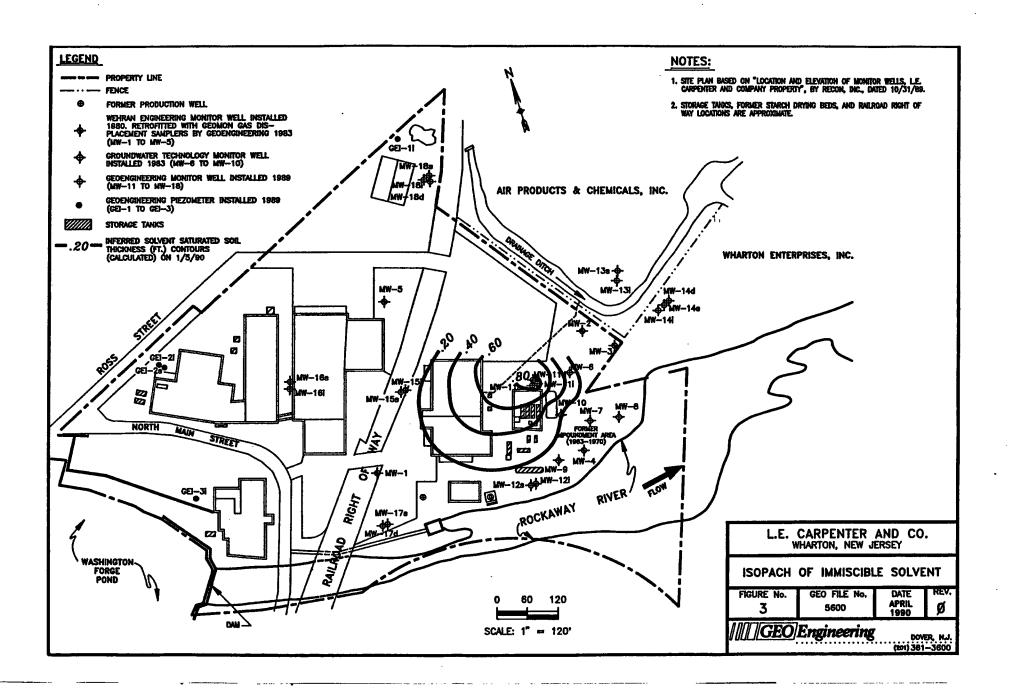


TABLE A: SOLVENT THICKNESS AND PIEZOMETRIC ELEVATIONS ON 2/5/90 SHALLOW WELLS

	•	MEASURED SOLVENT			
	IEZONETRIC	FLOATING SOLVENT	THICKNESS IN	CALCULATED FLOATING	
	URFACE ELEVATION	SURFACE ELEVATION	MONITORING WELL	SOLVENT THICKNESS	
	feet above MSL)	(feet above MSL)	(feet)	(feet)	
2222222	:::::::::::::::::::::::::::::::::::::::				
1	626.8 *	627.0	1.29	0.19	
_	626.0 *	NS	0.00	0.00	
3	625.8 +	NS	0.00	0.00	
4	626.3 4	626.5	1.31	0.20	
5	626.5 *	NS	0.00	0.00	
6	625.8 @	625.9	0.71	0.11	
7	625.9	NS	0.00	0.00	
8	624.6	NS	0.00	0.00	
9	627.2	NS	0.00	0.00	
10	624.2 0	624.3	0.56	0.08	
11	626.1 Q	626.1	0.18	0.03	
12	626.2 @	626.2	0.19	0.03	
13	625.9	NS	0.00	0.00	
14	625.7	NS	0.00	0.00	
15	626.7	NS ·	0.00	0.00	
16		NS	0.00	0.00	
17	627.2	NS	0.00	0.00	
	625.9	NS	0.00	0.00	
18		NS	0.00	0.00	
GEI-2s	627.6			••••	
DRAINAGE DITCH	623.5				
RIVER PT.	627.4 .				
RIVER PT.	626.8				
RIVER PT.	NM	,			

N O T E S - Depth to water measured inside GEOMON Groundwater Sampler/Piezometer (inlet screen is below solvent level)

^{0 -} Calculated piezometric surface, assuming solvent specific gravity is 0.87.

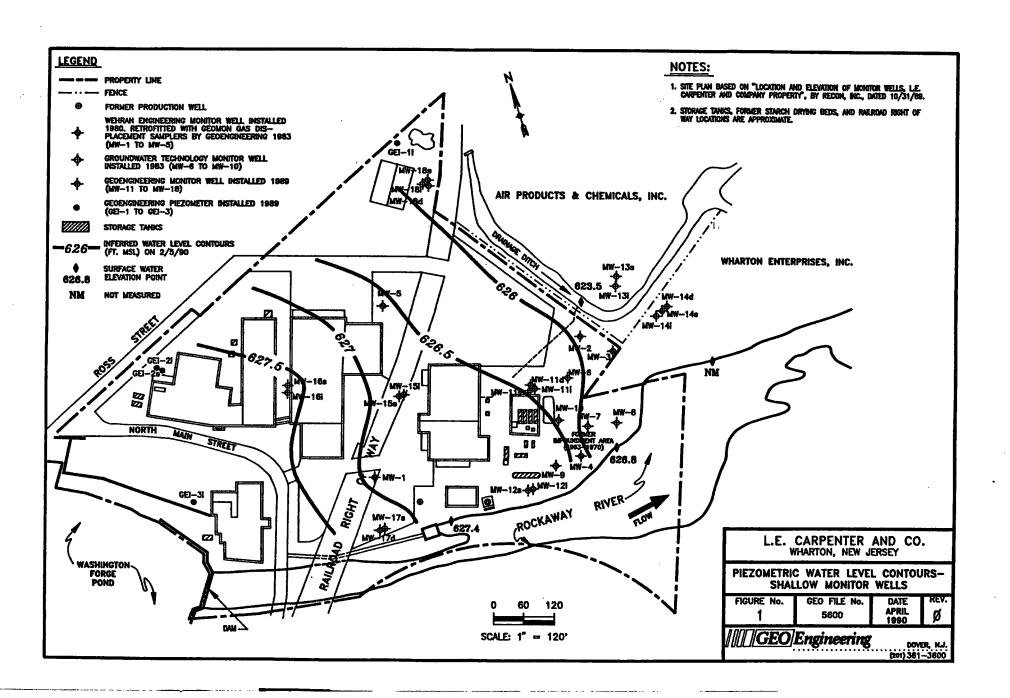
NS - No solvent observed in monitoring well

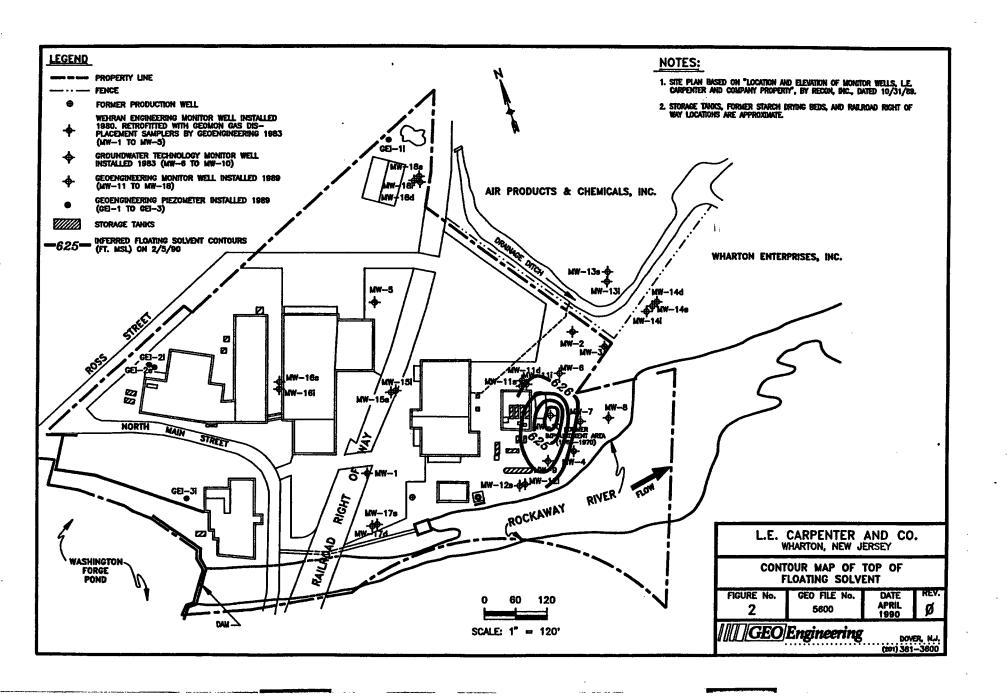
NM - Not measured

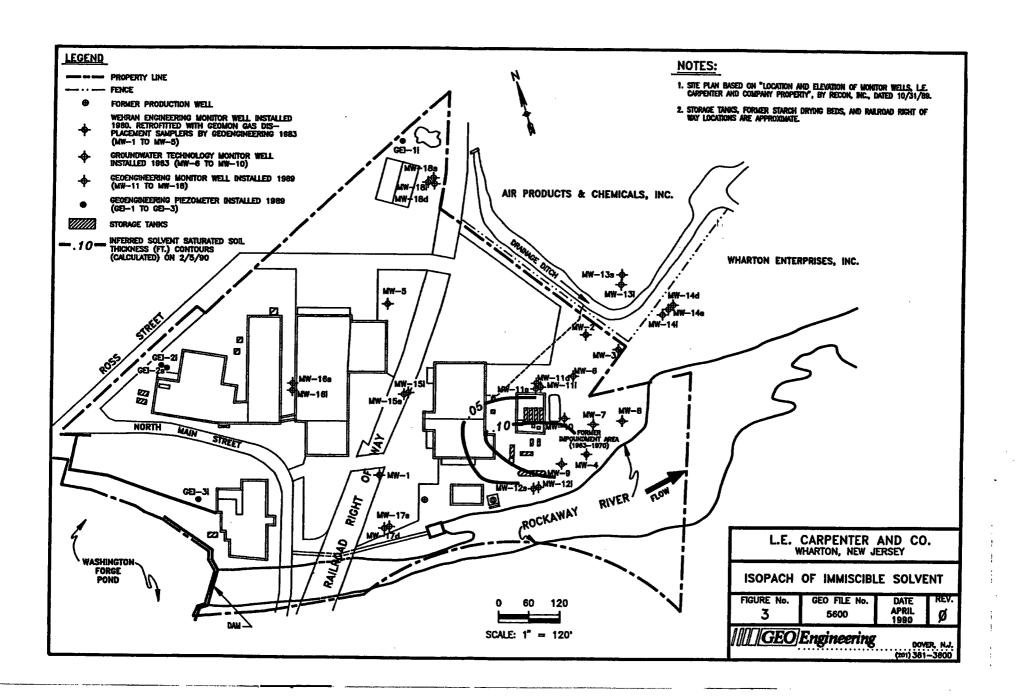
Elevations based on "Location and Elevation of Monitor Wells, L.E. Carpenter and Company Property", by Recon, Inc., 10-31-89

TABLE B: SOLVENT THICKNESS AND PIEZOMETRIC ELEVATIONS ON 2/5/90 INTERMEDIATE AND DEEP WELLS

` .	PIEZOMETRIC SURFACE ELEVATION (feet above MSL)	FLOATING SOLVENT SURFACE ELEVATION (feet above MSL)	MEASURED SOLVENT THICKNESS IN MONITORING WELL (feet)	CALCULATED FLOATING SOLVENT THICKNESS (feet)
•				
11i	627.0	NS	0.00	0.00
12i	627.2	NS	0.00	0.00
13i	626.6	NS	0.00	0.00
14i	626.5	NS	0.00	0.00
15 i	616.9	NS	0.00	0.00
16i	625.1	NS	0.00	. 0.00
18i	626.7	NS	0.00	0.00
GEI-1	626.8	NS	0.00	0.00
GEI-2	629.0	NS	0.00	0.00
GEI-3	628.7	NS	0.00	0.00
11 d	630.0	NS	0.00	0.00
17d	627.9	NS	0.00	0.00
. 18d	629.3	NS	0.00	0.00







	PIEZOMETRIC	FLOATING SOLVENT	MEASURED SOLVENT THICKNESS IN	CALCULATED FLOATING
	SURFACE ELEVATION	SURFACE ELEVATION	MONITORING WELL	SOLVENT THICKNESS
WELL NO.	(feet above MSL)	(feet above MSL)	(feet)	(feet)
=======================================	# = = = = = = = = = = = = = = = = = = =			
1	626.2 +	626.4	1.07	0.16
2	625.4 *	ns	0.00	0.00
3	625.6 +	625.7	0.91	0.14
4	625.8 *	NS	0.00	0.00
5	626.0 +	NS	0.00	0.00
6	624.3 @	624.5	1.89	0.28
7	625.8	NS	0.00	0.00
8	626.2	NS	0.00	0.00
9	625.9	ns	0.00	0.00
10	624.6 @	624.8	1.40	0.21
11	623.2 @	623.6	2.67	0.40
12	625.6 @	625.7	0.20	0.03
13	625.5	· NS	0.00	0.00
14	625.2	NS	0.00	0.00
15	626.1	NS .	0.00	0.00
16	627 .0	NS:	0.00	0.00
17	626.5	NS	0.00	9 0.00
18	625.5	NS	0.00	0.00
GEI-2s	626.9	NS	0.00	0.00
DRAINAGE DITCH	623.4			
RIVER PT.	627.6			
RIVER PT.	626.5			•
RIVER PT.	624.9			

N O T E S • - Depth to water measured inside GEOMON Groundwater Sampler/Piezometer (inlet screen is below solvent level)

Elevations based on "Location and Elevation of Monitor Wells, L.E. Carpenter and Company Property", by Recon, Inc., 10-31-89

Calculated piezometric surface, assuming solvent specific gravity is 0.87.

NS - No solvent observed in monitoring well

NM - Not measured

TABLE B: SOLVENT THICKNESS AND PIEZOMETRIC ELEVATIONS ON 3/22/90 INTERMEDIATE AND DEEP WELLS

	PIEZONETRIC SURFACE ELEVATION (feet above MSL)	FLOATING SOLVENT SURFACE ELEVATION (feet above MSL)	MEASURED SOLVENT THICKNESS IN MONITORING WELL (feet)	CALCULATED FLOATING SOLVENT THICKNESS (feet)
11i	627 .0	NS	0.00	0.00
12i	627.2	NS	0.00	0.00
13i	626.6	NS	0.00	0.00
14i	626.5	NS	0.00	0.00
15i	616.9	NS	0.00	0.00
16i	625.1	NS	0.00	0.00
18i	626.7	NS	0.00	0.00
GEI-1	626.8	NS	0.00	0.00
GEI-2	629.0	NS	0.00	0.00
GEI-3	628.7	NS	0.00	0.00
11d	630.0	NS	0.00	0.00
· 17đ	627.9	ns	0.00	0.00
18d	629.3	NS	0.00	0.00

